

### REMARKS

Applicant has amended independent claims 1 and 10 and added claims 18-22.  
Claims 1, 3-11, and 13-22 are presented for examination.

#### 35 U.S.C. § 103 Rejections

##### *Independent Claim 1*

The Examiner rejected claims 1, 3, 5, 7, and 16 as being unpatentable over Sinha (2003/0183410) in view of Morita (U.S. 6,344,956). Without conceding to the appropriateness of the examiner's rejection and solely to advance prosecution of this application to issuance, the Applicant has amended independent claim 1 to recite that the power flow controller is configured to selectively regulate the power flowing through the second power transmission line to provide at least one of load balancing between the first power transmission line and the second power transmission line and flow optimization between the first power transmission line and the second power transmission line. We submit that neither Sinha nor Morita, separately or in any proper combination, describe or suggest a multi-line utility power transmission system having a power flow controller configured in this manner.

The Examiner acknowledges that Sinha fails to disclose a power flow controller but cites Morita as disclosing a power flow controller in the form of a fault current-limiter (FCL) that selectively regulates power flowing through a superconductive line. The Examiner argues that it would have been obvious to one of ordinary skill in the art to add Morita's FCL to Sinha's superconductor transmission line to regulate the power flow through the line and, more particularly, to react quickly to short-circuit accidents. However, assuming arguendo, that a person of skill in the art would even modify Sinha's transmission system to include Morita's FCL (which we deny), we submit that doing so would not result in a multi-line utility power transmission system having a power flow controller to provide at least one of load balancing and flow optimization between the first power transmission line and the second power transmission line, as recited in amended independent claim 1. Fault current limiters (FCLs), like the superconducting

FCL described by Morita, are used to limit increases in current due to fault current flows (e.g. short circuit accidents) and are used to with circuit breakers to prevent damage to power devices and electrical circuits (see Morita col. 1, lines 12-21). However, FCLs are not used for flow optimization or load balancing, as is required by the power flow controller recited in amended claim 1. Thus, even if a person of skill in the art would somehow be compelled to combine the teachings of Sinha with Morita, which we vehemently deny (see Reply to Office Action dated October 26, 2006). For this reason alone, we submit that the rejection of claim 1 should be withdrawn.

We further submit that because claims 3, 5, and 7 depend from claim 1 these claims are patentable for at least the same reasons that claim 1 is patentable.

#### *Independent Claim 10*

The Examiner rejected claims 10, 11, and 13-14 as being unpatentable over Sinha, Morita and Hingorani. The Examiner acknowledges that Sinha fails to teach determining and regulating the level and amount of power flow through the second transmission line (see page 5, Office Action). The Examiner argues that Morita teaches this feature with its current-limiting device.

We submit that none of Sinha, Morita and Hingorani teach a method including “selectively regulating by a variable amount the power transferred through the second power transmission line to provide at least one of load balancing between the first power transmission line and the second power transmission line and flow optimization between the first power transmission line and the second power transmission line” as recited in amended claim 10. As discussed above in conjunction with claim 1, we submit that Morita’s superconducting fault current limiter (FCL) are not used for flow optimization or load balancing, as is required by amended claim 10.

For at least these reasons, we submit that claim 10 is patentable over Sinha, Morita and Hingorani, either alone or in any proper combination. We also submit that because claims 11, 13 and 14 depend from claim 10, these dependent claims are patentable for at least the same reasons that independent claim 10 is patentable.

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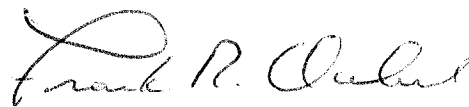
The Examiner rejected dependent claims 4, 6, 8-11, 13-15 as being unpatentable over Sinha and Morita and further in view of over one or more of Talisa (cited as teaching the use of high temperature superconductor made of Ti-Ba-Ca-Cu-O), Shimomura (cited as disclosing a cross-linked polyethylene power transmission line) and Hingorani (cited as teaching a bi-directional power flow controller). We submit however that none of these secondary and tertiary references disclose that which was missing from Sinha and Morita.

### Conclusion

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

The Request for Continued Examination fee in the amount of \$810.00 and the Petition for Extension of Time fee in the amount of \$120.00 are being paid concurrently herewith on the Electronic Filing System (EFS) by way of Deposit Account authorization. Please apply all charges or credits to Deposit Account No. 50-4189, referencing Attorney Docket Number 30020-189001.

Respectfully submitted,



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